

# Oral Health Sciences (OHSC)

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## Courses

### **OHSC 8011. Molecular Oral and Craniofacial Biology. 1 Credit Hour.**

Basic concepts of physiology, biochemistry, and cell biology related to the oral cavity and craniofacial complex are explored. Topics include connective tissue biology, the role of saliva in health and disease, muscle function, taste, smell, and other sensory functions, with emphasis on current research. These seminars are designed for first-year students in postdoctoral programs in which advanced courses are combined with specialty training. The course outlines scientific information about molecular biology that contributes to our understanding of normal structures and disease processes. Wherever possible, it indicates how this information is useful or impinges on clinical dentistry. This course presupposes a broad background in the basic sciences and interrelates much recently acquired scientific information about the oral cavity that has not been attempted at the predoctoral level.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may not be repeated for additional credits.

### **OHSC 8012. Advanced Dental Pharmacology and Therapeutics. 1 Credit Hour.**

Pharmacotherapeutics of drugs most often used in dentistry, with emphasis on mechanisms, interactions, and effects of drugs used in prevention, diagnosis, and treatment of oral diseases, and drugs used for systemic diseases that may influence the progression or management of oral diseases.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may not be repeated for additional credits.

### **OHSC 8013. Introduction to Evidence-Based Dentistry. 1 Credit Hour.**

Contemporary topics and research presentations on oral and craniofacial biology.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may not be repeated for additional credits.

### **OHSC 8014. Clinical Anatomy of the Head and Neck. 1 Credit Hour.**

Growth and development of the head and neck in relation to general gross anatomy; surgical anatomy of the head and neck region with neuroanatomic studies of cranial nerve anatomy, function and pathology; temporomandibular joint structure, function and dysfunction.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may not be repeated for additional credits.

### **OHSC 8015. Research Methodology and Study Design. 1 Credit Hour.**

Fundamental principles involved in planning, conducting, analyzing, and reporting of scientific research studies, including classification of study designs, hypothesis testing, clinical trial requirements, protocol and grant preparation, scientific writing, analysis and interpretation of data, and approaches to critical evaluation of the scientific literature.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may not be repeated for additional credits.

### **OHSC 8016. Cases in Oral and Maxillofacial Pathology. 1 Credit Hour.**

Students are taught to formulate appropriate clinical and radiographic differential diagnoses for common soft and hard tissue abnormalities of the oral and perioral region via case based discussions. Students receive instruction in the management of patients with common oral mucosal diseases. Indications for patient referral to medical or dental specialists for diagnostic evaluation or disease management are presented. Critical thinking is emphasized in case-based modules. During the case based discussions, students will be asked to describe the lesions using appropriate terminology, offer a prioritized differential diagnosis, suggest a diagnostic plan and recommend management strategies for the entities discussed. The use of a SOAP note format for documenting problem focused patient encounters in oral and maxillofacial pathology will be applied.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may not be repeated for additional credits.

**OHSC 8017. Oral Microbiology and Immunology. 1 Credit Hour.**

Study of microorganisms and host responses important in oral microbial ecology, oral infectious processes, and the pathogenesis of dental caries, periodontal diseases, dental implant infections, endodontic infections, oral mucosal lesions, and dental focal infections at non-oral body sites.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may not be repeated for additional credits.

**OHSC 8018. Biostatistics. 1 Credit Hour.**

Introduction to statistical analysis as it applies to biomedical research, including descriptive and inferential statistics. Topics include summarizing and displaying data, theory of measurements and distribution, significance testing, and basic concepts of probability and association.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may not be repeated for additional credits.

**OHSC 8019. Advanced Oral and Maxillofacial Radiology. 1 Credit Hour.**

Applications of digital dental radiography, panoramic radiology, tomographic imaging for dental implants, computed tomography (CT), and magnetic resonance imaging (MRI); differential interpretations of clinically significant oral and maxillofacial lesions.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may not be repeated for additional credits.

**OHSC 8033. Bioethics and Critical Thinking in Dentistry. 1 Credit Hour.**

This course introduces dental residents to the theoretical and practical foundations of bioethics. After an introduction to the history of bioethics and its theories, tools, and strategies for identifying and resolving ethical dilemmas, students will critically explore four key components of contemporary dental ethics: 'Ethics at the Chairside' covering topics such as confidentiality, truth telling, and cultural competency; 'Oral Health Disparities' which introduces the social determinants of health into the oral health equation; 'Research and Industry' designed to teach residents to critically think about conflicts of interest and professionalism; and 'Policy Perspectives' which covers oral health and social justice and the relationships between dental practitioners, health care reform, and oral health.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may not be repeated for additional credits.

**OHSC 8041. Evidence-Based Health Care. 2 Credit Hours.**

Evidence-based health care has been defined as the practice of health care that integrates the best available evidence with clinical experience and what a patient prefers in making clinical decisions. It is vital that all clinicians are trained to adopt a constructively and professionally critical mindset in making their own assessments of published work. The Evidence-Based Health Care course is designed to provide foundation knowledge and practical experience in five main domains: 1) Asking evidence-based questions (framing an answerable question from a clinical problem); 2) Searching for the best evidence; 3) Reviewing and critically appraising the evidence; 4) Applying this information in a way to help the clinical practice and 5) Managing existing data and conducting basic statistical analyses.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may not be repeated for additional credits.

**OHSC 9991. Research in Oral Health Sciences. 1 to 6 Credit Hour.**

Limited to M.S. in Oral Health Sciences degree students with graduate program approval.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**College Restrictions:** Must be enrolled in one of the following Colleges: Dentistry, Kornberg School.

**Repeatability:** This course may be repeated for additional credit.

**OHSC 9993. Master's Research Qualifying Examination. 1 Credit Hour.**

The Masters project must be formally accepted by the student's advisory committee prior to commencing the project. A comprehensive proposal will be reviewed by the student's mentor and advisors, and will be presented in a qualifying exam presentation to demonstrate appropriate understanding of the project. This proposal contains an introduction, theories, hypotheses, scholarly literature review, research methods, proposed alternatives and any other issues relevant to the project.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**College Restrictions:** Must be enrolled in one of the following Colleges: Dentistry, Kornberg School.

**Course Attributes:** DI

**Repeatability:** This course may be repeated for additional credit.

**OHSC 9995. Master's Thesis Research. 4 Credit Hours.**

The Thesis Research course is designed for the residents to explain in detail the step by step process of their individual Master's Degree research projects. Included in this presentation is a slide show which highlights all aspects of the project and its design. Each section of the Master's Thesis is to be included in the slide show and is subject to questioning throughout the presentation. The resident is expected to answer questions completely in order to support their research.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may be repeated for a total of 8 credit.

**OHSC 9996. Master's Thesis in Oral Biology. 1 to 6 Credit Hour.**

Limited to, and required of, M.S. in Oral Biology degree students with graduate program approval.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may be repeated for additional credit.